

ABSTRACT OF THE DISCLOSURE

A drive crank shaft and a load shaft with an eccentrically placed center shaft coupler form a mechanical torque transferring structure. Two convoluted rubber seals mounted on a center shaft coupler, a drive shaft support and a load shaft support enclose the working fluid to form double hermetic sealing. The rubber seals exert enough force against twisting to hold the center shaft coupler and prevent the center shaft coupler from rotating around its center. Two balance weights are mounted on both crank shafts symmetrically to eliminate vibration due to eccentric configuration. An enclosed housing prevents fluid from leaking into the environment. A sensor is used to detect the leakage and control the operation. This rotary shaft sealing device provides dynamically hermetic sealing by eliminating a leaking path for the pressurized working fluid.